REMARKS

Applicants respectfully request entry of the amendments and remarks submitted herein. Claims 1, 10 and 17 have been amended herein and claims 41-43 and 51-53 have been canceled without prejudice to continued prosecution. As indicated herein, claims 1, 10 and 17 have been amended to recite that the solid tumor is pancreatic cancer. Support for this amendment can be found, for example, in Examples 1, 5, 6, 11 and 13, specifically, see paragraphs [0173] and [0178] of the published application (US 2007/00031899) and in previous claims 51-53.

Claims 1, 10, 17 and 45-50 are currently pending. Reconsideration of the pending application is respectfully requested.

The 35 U.S.C. §102 Rejections

Claims 1, 10, 17, 41, 46, 48 and 50-53 stand rejected under 35 U.S.C. §102(e) as being anticipated by Green et al. (US Patent No. 7,268,136). This rejection is respectfully traversed.

As indicated herein, independent claims 1, 10 and 17 have been amended to recite "pancreatic cancer" instead of "solid tumor". The Examiner asserted that Green et al. discloses that "compounds which inhibit protein kinases, in particular Pim-1 are useful for the treatment of a proliferative disorder, including a cancer." However, the full quote from Green et al. follows:

> As discussed above, the present invention provides compounds that are inhibitors of protein kinases, and thus the present compounds are useful for the treatment of diseases, disorders, and conditions including, but not limited to a proliferative disorder, a cardiac disorder, a neurodegenerative disorder, psychotic disorders, an autoimmune disorder, a conditions associated with organ transplant, an inflammatory disorder, an immunologically mediated disorder, a viral disease, or a bone disorder. In a preferred embodiment, the compounds are useful for the treatment of ... cancer... (emphasis added).

As argued previously, Green et al. does not disclose that their compound would be useful for treating a solid cancer, and Green et al. certainly does not disclose that their compound would be useful for treating pancreatic cancer. Green et al. fails to disclose any evidence supporting their general statement regarding the effectiveness of their compound to treat "proliferative disorders" or "cancer". Since Green et al. does not disclose any correlation between inhibiting

Pim-1 and pancreatic cancer, Green et al. does not disclose the claimed methods. Thus, Green et al. does not anticipate the pending claims.

In view of the amendments and remarks herein, Applicants respectfully request that the rejection of pending claims under 35 U.S.C. §102(e) be withdrawn.

The 35 U.S.C. §103 Rejections

Claims 42, 43, 45, 47 and 49 stand rejected under 35 U.S.C. §103(a) as being unpatentable over Green et al. in view of Whitmarsh et al. (*Methods in Enzymology*, 332:319-336, 2001). According to the Examiner, Green et al. does not teach detecting phosphorylation using a reporter gene assay, which is cured by the disclosure in Whitmarsh et al. The Examiner asserted that it "would have been prima facie obvious to one of ordinary skill in the art at the time the claimed invention was made to use the reporter gene assay taught by Whitmarsh et al. to determine phosphorylation activity of Pim-1 in the method taught by Green et al." (OA at page 5). This rejection is respectfully traversed.

The present inventors discovered, for the first time, a link between the inhibition of phosphorylation activity of Pim-1 and the treatment of pancreatic cancer, as discussed in Applicants' specification (see, for example, paragraphs [0173] and [0178] of the published application). Green et al. is silent about the effectiveness of their compound for treating pancreatic cancer, and, at the time of the present invention, it would not have been obvious for one skilled in the art to believe that inhibitors of Pim-1 would be effective for specifically treating pancreatic cancer among a large number of different cancers having various pathological mechanisms.

According to the Examiner, one of ordinary skill in the art "would have been motivated to [develop the claimed methods] with a reasonable expectation of success by teachings in Whitmarsh et al. and Green et al. because reporter gene assays help to target specific activators and Green et al. disclose inhibitors of Pim-1 can be assayed for phosphorylation activity" (OA at page 5). However, the Supreme Court stated that "rejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." (*KSR Int'l Co. v. Teleflex Inc.*, 127 S. Ct. 1727 (2007), quoting *In re Kahn*, 441 F.3d 997, 988 (Fed. Cir. 2006))

and urged that "this analysis should be made explicit" (*KSR* at 1742). In the present case, the Examiner's conclusion that one of skill in the art would be motivated to arrive at the claimed screening method because "reporter gene assays help to target specific activators" is conclusory and has nothing to do with the claimed screening method. In the absence of an articulated reasoning based on a rational underpinning, the obviousness rejection appears to be based on improper hindsight analysis.

In addition, as evidence of the efficacy of the claimed screening method, specifically with respect to pancreatic cancer, Applicants note that one of the compounds obtained by the claimed screening methods has been demonstrated to suppress pancreatic cancer cell proliferation. Applicants respectfully refer the Examiner to WO 2008/056634, a partial translation which is attached hereto. In Example 11 and Fig. 1-1 of WO 2008/056634, NJC97-1, a compound obtained by the method of claim 1 of the present application, is described to have an inhibitory activity on Pim-1 kinase activity (IC_{50} = 50 nM). Example 12 and Fig. 2-1 further shown that NJC97-1 exerts cytotoxicity (e.g., based on suppressing cell proliferation) towards a pancreatic cell line, MiaPaCa-2. These data clearly and unambiguously demonstrate the effectiveness of a compound obtained by the claimed methods to specifically treat pancreatic cancer.

In view of the amendments and remarks herein, Applicants respectfully request that the rejection of the pending claims under 35 U.S.C. §103(a) be withdrawn.

CONCLUSION

Applicants respectfully request allowance of claims 1, 10, 17 and 45-50. Please apply the fee for the enclosed Petition for Extension of Time and any other charges or credits to Deposit Account No. 06-1050.

Respectfully submitted,

/March 2, 2010/

Date:

/M. Angela Parsons/

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